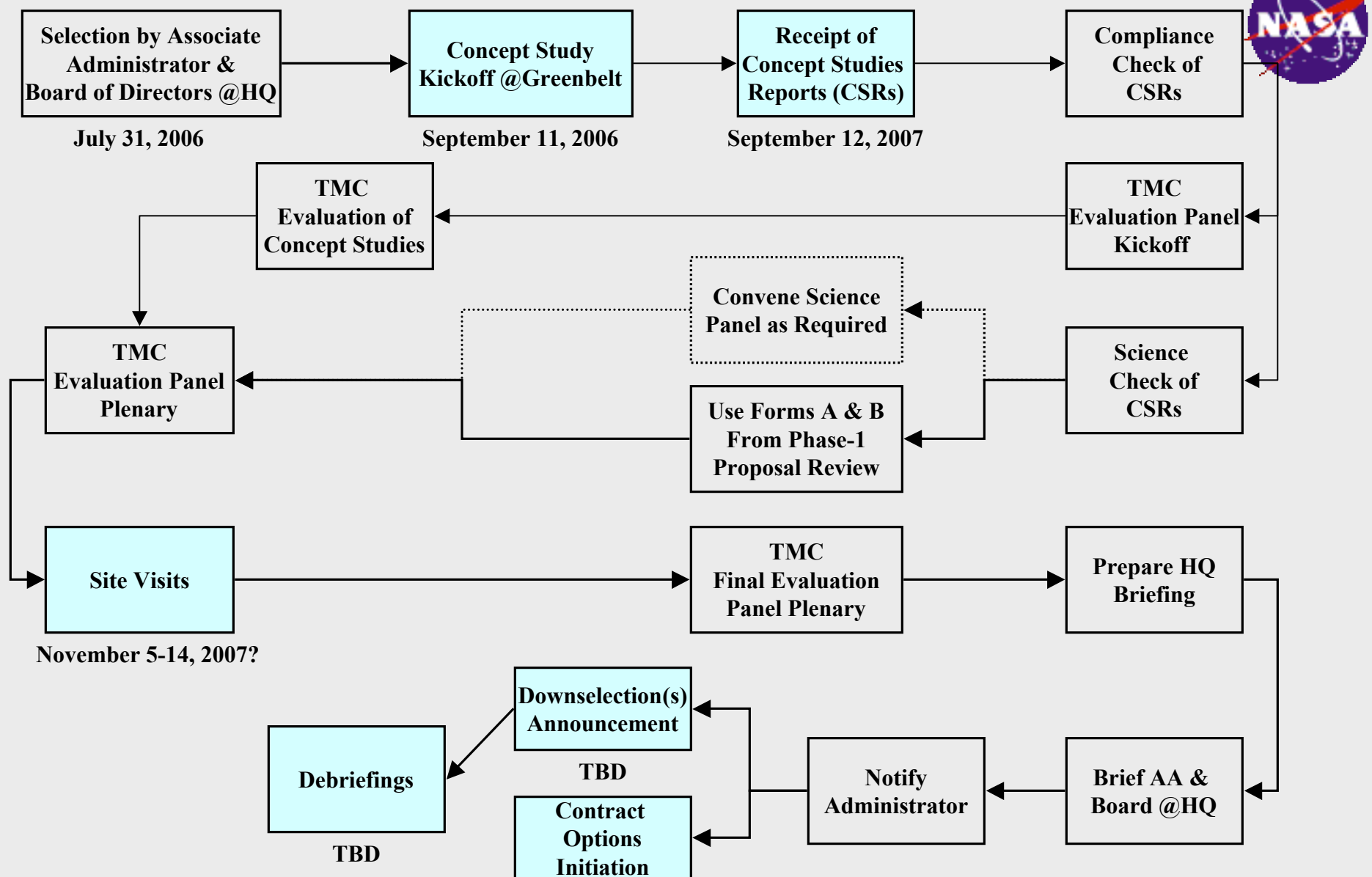




Geospace-Related Missions of Opportunity Phase A Concept Study & Downselect

Dr. Waldo J. Rodríguez, Science Support Office
Kick-off Meeting, September 11, 2006

Downselect Schedule/Evaluation Flow



Concept Study Report (CSR) Evaluation



- Dr. Barbara Giles, Heliophysics Division, NASA Headquarters will Chair the Evaluation Team
- Dr. Waldo J. Rodríguez, Science Support Office, NASA LaRC will lead the Technical, Management, and Cost (TMC) evaluation
- Final CSRs must be delivered no later than 4:30 PM September 12, 2007.
 - 40 copies of the Concept Study Report
 - Plus 25 copies of the fact sheet.
 - Each paper copy must be accompanied by a CD containing the CSR in a single file (prefer PDF format) that is readable by a Mac or PC and searchable.
 - Also a tab delimited file must be included in the CD for all cost tables
 - Deliver to:
 - LWS Missions of Opportunity
 - Science Mission Directorate
 - NASA Research and Education Support Services
 - Suite 200
 - 500 E Street, SW
 - Washington DC 20024-2760
 - Tel. (202) 479-9030



Concept Study Report Content

- **Scientific Investigation (30 pages + 8 per additional instrument)**
 - Any changes to the science implementation will be evaluated
 - If there is no substantive change in the science implementation, then the scientific merit of the proposed investigation and the technical merit of the science implementation will not be reevaluated.
 - Science section from Proposal **MUST** be repeated in the CSR.
 - Any and all changes **MUST** be highlighted. In addition, a **CHANGES PAGE** up front that does not count against the page count should summarize significant changes to the Science Investigation section by identifying the original requirements, the new requirements, the rationale for the changes, and the page location in the CSR where it is addressed.
 - A science panel will be convened, if needed, to review any changes.
- **Technical approach and mission design, Management of the program (75 pages), and Cost (no page limit)**
 - Phase 2 Downselection will emphasize TMC



Evaluation Criteria

The Concept Study Report will be evaluated on to 3 criteria

- **Scientific Merit of the investigation**
 - Same criterion as in AO.
 - Scientific Merit will not be evaluated if there is no change in the Science.
 - Grade from original proposal will be used.
- **Merit and feasibility of the Science Implementation**
 - Same criterion as in AO
 - Merit not evaluated if there are no substantive changes in science implementation
 - Grade from original proposal will be used.
- **Technical approach and mission design, Management of the program, Cost Risk**



Competition Conditions

- “Blackout” after the Kickoff Meeting
 - Communications after this meeting will be controlled.
 - All programmatic questions, including questions of policy, questions of interpretation, and questions of clarification, should come to NASA Headquarters’ Dr. Barbara Giles.
 - Answers, if warranted, will be provided via email to all PI’s and posted on the web.
- Site Visits will be coordinated with Dr. Waldo J. Rodríguez.
- Relevant documentation, including the *Guidelines and Criteria for the Geospace-Related Missions of Opportunity Phase A Concept Study* will be provided.

Site, <http://sso.larc.nasa.gov/rbsp/index.html>

Library, <http://sso.larc.nasa.gov/rbsp/rbsplib.html>



Some CSR Guidelines Highlights

General Considerations

- All program constraints, guidelines, definitions, and requirements in the AO are still valid unless noted.
- *Guidelines and Criteria for the Geospace-Related Missions of Opportunity Phase A Concept Study*, defines the preparation and submission requirements.
- The CSR is a Complete, Robust, Detail Plan.
- The CSR is to be a self-contained document.
 - Do not assume that evaluators have read or have access to the original proposal.
 - No reference to proposals; Evaluations are only of material from
 - 1) Concept Study Report; and 2) Briefing materials from Site Visits.

Some CSR Guidelines Highlights (cont.)



- Full cost accounting.
 - All direct costs associated with the work performed at NASA Centers must be fully accounted and summarized in the proposal. NASA Center Management and Operations (M&O previously known as Center G&A, IT, and facility service pools) and Independent Technical Authority (ITA) estimates need to be included, and separately identified using the center's out-year rate projection.
- Detailed cost proposal with cost or pricing data as defined in FAR 15.401 is required for Phase B through E.
- Letters of endorsement must be provided from all organizations participating and/or are critical to the investigation.
- A summary plan is required specifying the proposed investigation's commitment to meet NASA's Small Disadvantage Business (SDB) and other minority institution participation goals.
- Appendices other than specified are NOT allowed.

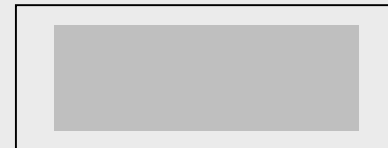
Some CSR Guidelines Highlights (cont.)



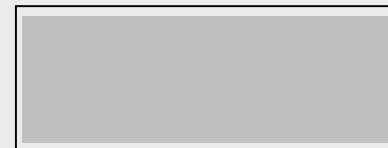
Technical, Management, Cost (TMC)

- *Guidelines and Criteria for the Geospace-Related Missions of Opportunity Phase A Concept Study* document is in the RBSP library
<http://sso.larc.nasa.gov/rbsp/rbsplib.html>
- In Phase 1, TMC Risk was evaluated using 3 categories:
 - High, Medium or Low Risk
- In Phase 2/Downselect, 9 categories will be utilize for TMC evaluation.

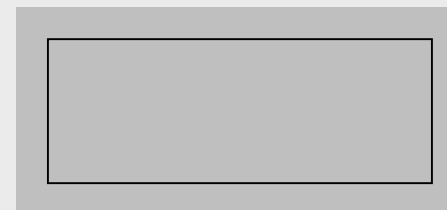
•Low Risk $\left\{ \begin{array}{l} 9 \\ 8 \\ 7 \end{array} \right.$



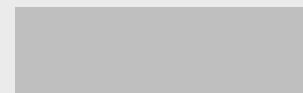
•Medium Risk $\left\{ \begin{array}{l} 6 \\ 5 \\ 4 \end{array} \right.$



•High Risk $\left\{ \begin{array}{l} 3 \\ 2 \\ 1 \end{array} \right.$



= available resources



= estimated resources⁹

Some CSR Guidelines Highlights (cont.)



Instruments

- Provide detail instrument designs.
- Explain ground and on-board calibrations in detail. Describe calibration and testing procedures, facilities, and schedules.
- Show evidence for the instrument performance claims.
- Provide evidence of claimed maturity. Particularly if instruments are claimed to be at high TRLs e.g. TRL5.
- Detail plans for the development of instruments at low TRLs. In addition back-up plans should be presented. Absence of a back-up plan for low TRL items will result in a higher risk rating.
- Describe a clear plan of space and environment accommodation: quantitative information must be provided when possible. This is often overlooked when existing or heritage instruments are proposed for hostile environments requiring major design changes.
- If the instrument from which heritage is claimed was built at a different institution than that building the instrument in the project, explain how this heritage is applied and lessons learned incorporated.
- An observation plan to maximize science return (particularly for multiple instruments) must be presented.
- Power and power margins must be provided during average and peak power usage.

Some CSR Guidelines Highlights (cont.)



Management

- Mission of Opportunity proposals must specifically address how the investigation team will interrelate with the sponsoring organization, organizationally and managerially, and describe;
 - the status of the commitment from the host mission's sponsoring organization to fly the proposed instrument or conduct the proposed investigation;
 - if and how the proposed investigation relates to the sponsor's overall mission objectives;
 - the investigation development plan and how it fits in the development plan of the sponsor's mission; and
 - how the operations plan for the proposed investigation fits within those for the mission of the sponsoring organization.
- Schedules for all major activities, interdependencies between major items, deliveries of end items, critical paths, schedule reserves and margins, and long-lead procurement needs (defined as hardware procurements required before the start of Phase C/D) must be clearly identified and discussed.

Cost

- Cost Realism will be an important risk consideration.
 - Provide cost basis.
 - Investigations must maintain a reserve of at least 25 percent of all costs through the end of Phase D. A cost reserve for Phase E must also be included as appropriate.
 - Proposals near the cost caps and/or with insufficient cost margins will be considered High Risk.
 - Provide Past Performance data.
-

Some CSR Guidelines Highlights (cont.)



Oral Briefings/Site Visits

- Oral briefings/site visits to be scheduled approximately 7 weeks after the CSR deadline.
- Location of the Site Visit will be negotiated with the PI/proposal team and coordinated with Waldo J. Rodríguez from SSO.
- Briefing at each site will be limited to 8 hours; an additional 1 hour for a site tour is allowed. (Suggest days of 8:30-6:00)
- All briefings must be in plenary. (Avoid splinters)
- Written mission specific questions will be submitted to the PI/proposal team 144 hours in advance of the visit regardless of order or schedule date. All teams will get the same lead time.
- Unless specifically requested by NASA, only data and material presented during the briefings will be considered.
- Preferred Site negotiations finalized to the SSO no later than June 12, 2007.
- Confirmation of Site Visit Schedule will be given July 12, 2007.



?